

VU Research Portal

Managing Citizen Science in the Humanities: The challenge of ensuring quality

Prats Lopez, M.

2017

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Prats Lopez, M. (2017). *Managing Citizen Science in the Humanities: The challenge of ensuring quality* (19 ed.). [PhD-Thesis - Research and graduation internal, Vrije Universiteit Amsterdam]. ABRI.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

Table of contents

Table of contents	i
List of tables.....	iii
List of figures.....	iv
1 Introduction	1
1.1 The need for quality	3
1.2 Research approach.....	5
1.2.1 Research context	5
1.2.2 Case selection	7
1.2.3 Research methods.....	8
1.3 Dissertation outline	12
1.4 Theoretical relevance	15
1.5 Practical relevance	15
2 Quality in the making: Managing knowledge in citizen science projects	17
2.1 Introduction	18
2.2 Theoretical background	19
2.3 Methods.....	22
2.3.1 Research setting.....	22
2.3.2 Research approach.....	23
2.3.3 Data collection.....	24
2.3.4 Analysis	26
2.4 Findings.....	27
2.4.1 What is quality?.....	27
2.4.2 How is quality assured?.....	27
2.5 Discussion and conclusion	36
2.5.1 The quality assurance process in citizen science	36
2.5.2 Implications for knowledge management	41
2.5.3 Limitations and future research.....	42
3 Extra-organizational learning: Learning beyond organizational boundaries	43
3.1 Introduction	44
3.2 Theoretical framework	45
3.3 Methods.....	49
3.3.1 Research setting.....	49
3.3.2 Data collection and analysis	51
3.4 Findings.....	52
3.4.1 Quality	52
3.4.2 Evidence of extra-organizational learning	54
3.4.3 Supporting extra-organizational learning	59
3.5 Discussion and conclusion	62
3.5.1 Limitations and future research.....	65
3.5.2 Practical implications	65

4 The dynamics of affordances: Using an online citizen science platform	67
4.1 Introduction	68
4.2 Theoretical background	69
4.2.1 Affordances	69
4.2.2 Analytical framework.....	70
4.3 Methodology	74
4.3.1 Research setting.....	74
4.3.2 Data collection.....	75
4.3.3 Data analysis	77
4.4 Findings.....	78
4.4.1 Technology and its designed affordances	78
4.4.2 The citizen science project: ‘Gouda on Paper’	82
4.4.3 Perceived affordances	83
4.4.4 Actualized (and non-actualized) affordances	86
4.5 Discussion and conclusion	91
4.5.1 Theoretical implications.....	94
4.5.2 Limitations	95
4.5.3 Future research	95
5 Discussion	97
5.1 Summary of findings.....	98
5.1.1 Quality is made through investments in knowledge	98
5.1.2 Practice makes perfect.....	99
5.1.3 Technology supports quality even when used in unintended ways	100
5.2 Theoretical implications and suggestions for future research	102
5.2.1 Quality and knowledge assessment.....	102
5.2.2 Quality, learning and retention.....	104
5.2.3 Quality and openness	106
5.3 Implications for practice	108
5.4 Reflection	109
5.4.1 Research limitations and approach to citizen science	109
5.4.2 Ethical issues around citizen science	111
References	113
Appendix A (Chapters 2 and 4)	127
Appendix B (Chapter 3)	131
Summary.....	135
Acknowledgments	139

List of tables

Table 1. 1. Data sources	11
Table 1. 2. Outline of the dissertation	14
Table 2. 1. Data sources	25
Table 3. 1. Measures of participation and activity in Transcribe Bentham	55
Table 3. 2. Learning measures in Transcribe Bentham	56
Table 3. 3. Selected difficulty levels	57
Table 3. 4. Kruskal-Wallis test	57
Table 4. 1. Data sources	77
Table 4. 2. Designed Affordances	80
Table 4. 3. Perceived Affordances	85
Table 4. 4. Actualized Affordances	88
Table 4. 5. Different designed, perceived and actualized affordances	90
Table 5. 1. Summary of findings	101

List of figures

Figure 2. 1. The process of quality assurance in citizen science	37
Figure 2. 2. Connection between quality assurance activities	40
Figure 2. 3. Factors influencing the choice between professional and peer reviews.....	41
Figure 3. 1. Extra-organizational learning, mirroring the 4I framework	47
Figure 3. 2. Home-page of the Transcribe Bentham project.....	50
Figure 3. 3. Example of a complex manuscript, its transcription and encoding	51
Figure 3. 4. Efficiency gains from correcting transcriptions of better quality	53
Figure 3. 5. Lorenz curve indicating the unequal distribution of participation*	54
Figure 3. 6. Percentage of easy, moderate & difficult manuscripts (6 super-transcribers).....	58
Figure 3. 7. Average % of alterations as experience increases (based on 63 people).....	58
Figure 3. 8. Transcription guidelines (retrieved February 2015)	59
Figure 3. 9. Activities supporting extra-organizational learning	63
Figure 4. 1. Affordances as a relational concept	70
Figure 4. 2. Analytical framework	72
Figure 4. 3. Affordances embedded in an activity system	73
Figure 4. 4. Timeline of eLaborate's development, adoption, and research period.....	75
Figure 4. 5. Web-based transcription environment 'eLaborate', versions 2, 3 and 4	81
Figure 4. 6. Drop-down menu with annotation categories / Annotations in Word.....	89
Figure 4. 7. Relation between designed, perceived and actualized affordances.	92
Figure 5. 1. Principles of openness in citizen science.....	106